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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,725	03/29/2000	Seok-Keun Koh	P/2292-29	9859

2352 7590 11/26/2003

OSTROLENK FABER GERB & SOFFEN
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NEW YORK, NY 100368403

EXAMINER

MAYEKAR, KISHOR

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 11/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

0021

Office Action Summary

Application No.

09/509,725

Applicant(s)

KOH ET AL.

Examiner

Kishor Mayekar

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 2-19, 22 and 30-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 20, 21 and 23-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Claims 2-19, 22 and 30-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 9 (see the treated election in Paper No. 10).

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 20, 21 and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over HAQUE et al. (4,598,022) in view of Applicant's admission. The reference's invention, a reference cited in the last Office action, is directed to a plasma treatment of copper foils to increase their laminated adhesion. The

reference discloses in the abstract, Fig. 1, col. 5, lines 37-40, col. 10, lines 41-45 and Example II that the treatment comprises all the steps as claimed. The reference further discloses in col. 2, lines 46-47 and in col. 10, lines 16-25 the wide applicability of the treatment. The differences between the reference and the above claim are that the reference does not detailing on the contents of the generated plasma and whether the reference's metal substrate is directly and electrically connected to a positive terminal of the DC power supply.

As to the former difference, Applicant admits in the second paragraph of page 3 of the specification that the generated plasma from a one-step plasma comprises ionized gas, radicals and the like. The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the reference's teachings as admitted by Applicant because such contents are known to be formed within the generated plasma.

As to the latter difference, first, since the metal substrate is placed on the anode where the anode is any electrical conductor and electrically connected to the DC power supply, the metal substrate/anode is the anode electrode and directly and electrically connected to the DC power supply in the meaning that there no intervening between the metal substrate/anode and the DC power supply. Second,

it has been held that "omission of an element with a correspondingly omission of function is within the level of ordinary skill. *In re Wilson* 153 USPQ 470; *In re Larson* 144 USPQ 347; *In re Karlson* 136 USPQ 184; *In re Portz* 145 USPQ; *In re Liston* 58 USPQ 481; *In re Porter* 20 USPQ 298.

As to the subject matter of claim 25, the reference discloses in col. 7, lines 37-47, the exposure time of the substrate to plasma.

As to the subject matters of claims 26-28, the reference discloses the controlling of nitrogen gas' flow rate and other chemicals used as the organic species (col. 7, lines 15-22).

4. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over HAQUE '022 in view of Applicant's admission as applied to claims 1, 20, 21, 25, 26 and 28 above, and further in view of HAQUE et al. (4,588,641). The further difference between the references as applied above and the instant claim is the recited further step. HAQUE, another reference cited in the last office action, shows the above limitation in a plasma treatment (see abstract). The subject matter as a whole would have been obvious to one having ordinary skilled in the art at the time the invention was made to have modified the references' teachings as

suggested by HAQUE '641 because this would further enhance the lamination adhesion of the treated copper foils.

5. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over HAQUE '022 in view of Applicant's admission as applied to claims 1, 20, 21, 25, 26 and 28 above, and further in view of KLEEBERG et al. (5,089,290), another reference cited in the last Office action. The difference between the reference as applied above and the instant claim is the step of annealing the formed polymer. KLEEBERG shows the above limitation in a method of plasma polymerization of a substrate (see abstract). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the references' teachings as suggested by KLEEBERG because this would result in stabilizing the formed polymer.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See

In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1, 23-25, 28 and 29 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 35-37, 40 and 42 of copending Application No. 09/529,052. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the selection of the concentration of the non-polymerizable gas of which it would be within the level of ordinary skill in the art.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

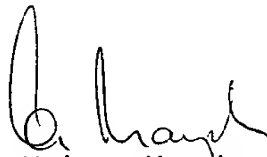
Response to Arguments

8. Applicant's arguments filed September 2, 2003 have been fully considered but they are not persuasive because of the rejections as set forth above.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (703) 308-0477. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (703) 308-3322. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Kishor Mayekar
Primary Examiner
Art Unit 1753